Panguitch Lake

The Panguitch Lake snow course was originally located very near Panguitch Lake on an open sagebrush flat that had a very slight north aspect. It was a very open and exposed to both wind and solar aspects from all directions. This site is at an elevation of 8200 feet msl. It is a low SWE site that typically melts early and has many zeros in the record. In 1994, we became aware that this site would soon be developed into cabins and that it would have to be moved. A new site was secured about a mile away and we were able to measure both sites concurrently for several years to establish a statistical relationship and generate a back record for the new site from the original. The values from the new location were nearly identical to the original snow course, typically varying by only tenths of inches for the average value of the entire course on any given survey. The original course was discontinued in 1997.
Potential weather modification: 74-83, 85-

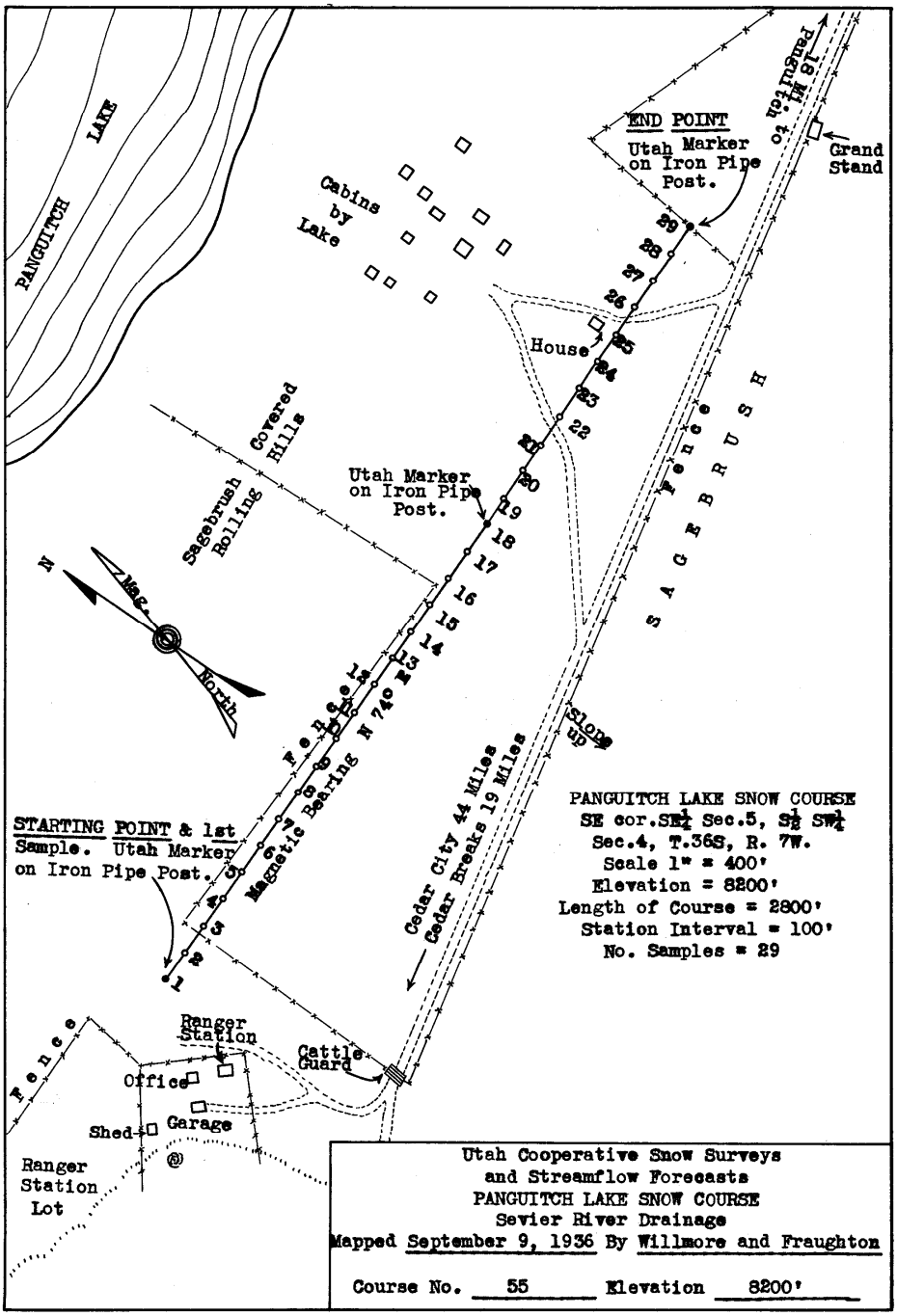
This photo taken in 1936 shows the old ranger station at Panguitch Lake and one end of the original course that had 29 sample points at 100 foot intervals. This marker post is a few hundred yards from the new snow course location.

This is the east end of the original course closer to the lake. Notice the open exposure with intermittent sage brush as the dominant species.

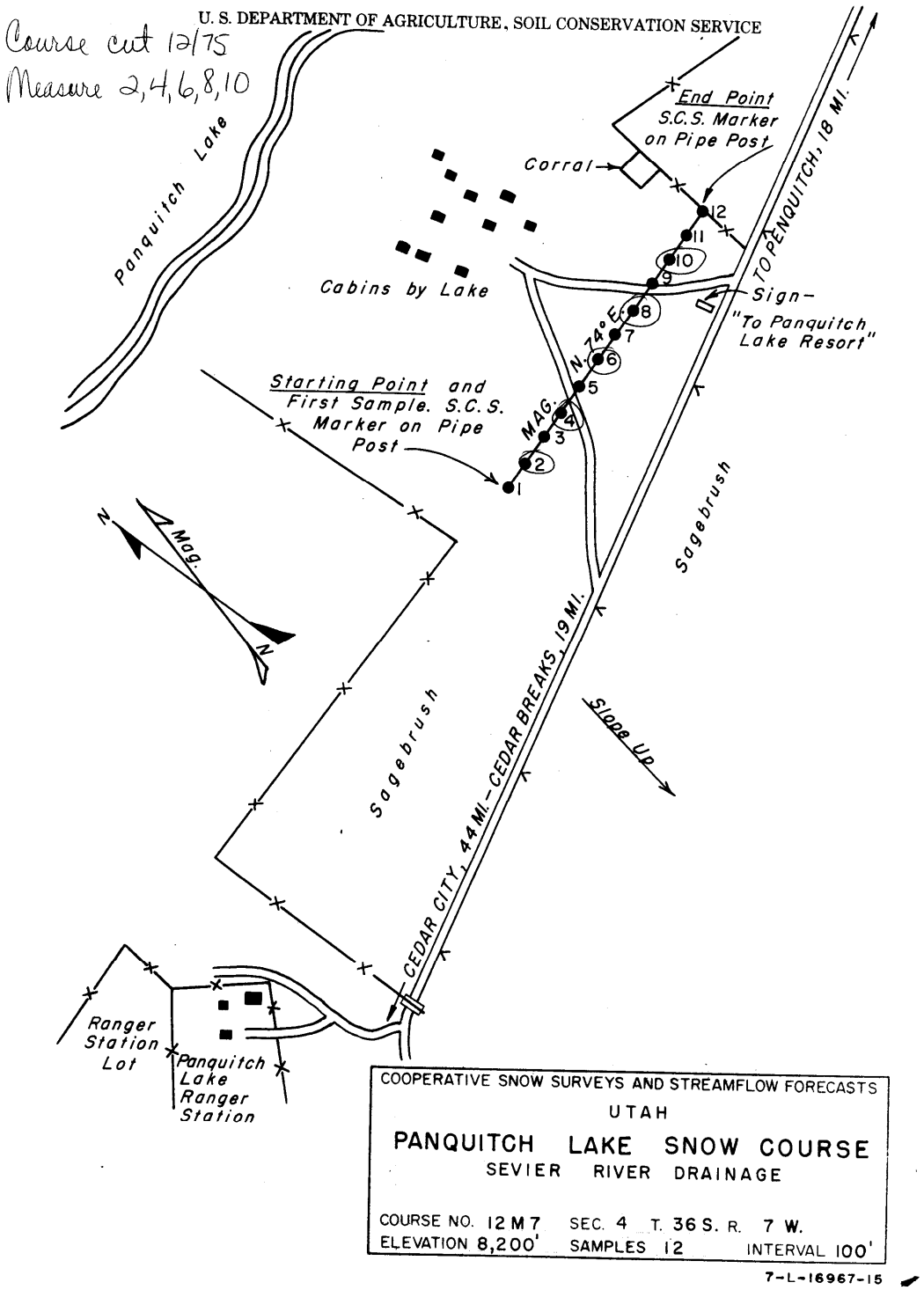
This photo is from the easterly end of the course looking to the south-southeast toward the grand stand.

The current snow course consists of 4 points marked by t stakes around the central precipitation gage in the center. The ranger station complex is in the background. The original course was on the far side of the complex. There have been some trees that have grown up over the past 80 years or so but would have had little impact on this new location since the relocation of the original course.

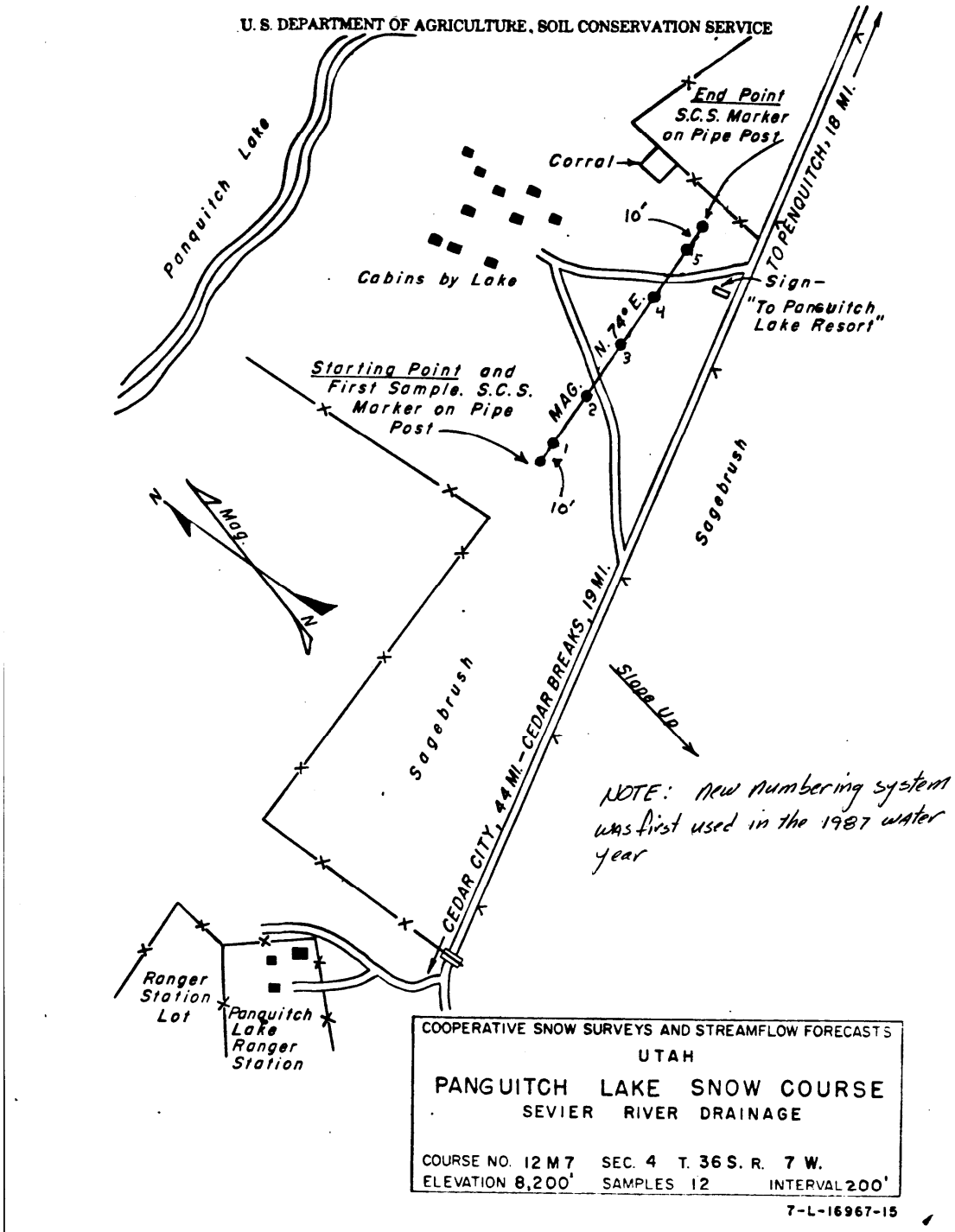
This photo shows the view looking north from the current course toward Panguitch Lake. The old course would bisect this photo from left to right, although the most current measured portion of the course would have been off the photo to the right.



Original Panguitch Lake snow course map, 29 sample points at 100 ft intervals.



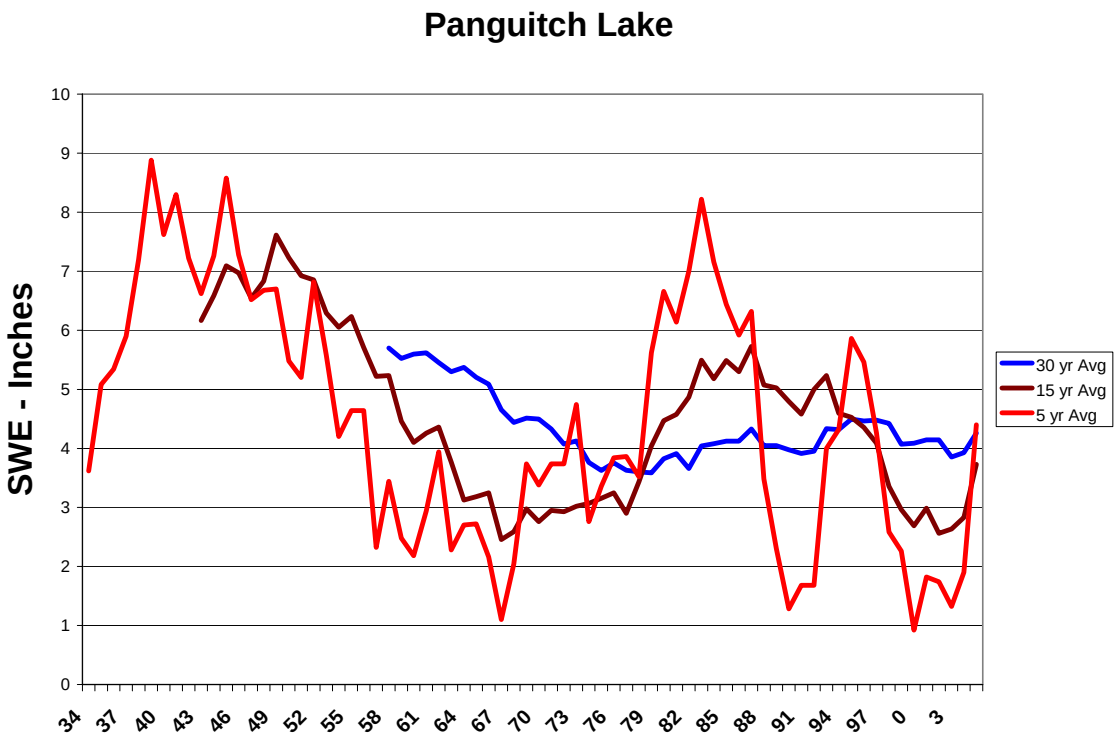
Sample points reduced in 1975, notice that non consecutive points were retained, 2,4,6,8, and 10.



Sample points renumbered. Course discontinued due to new development of cabins, relocated near the ranger station.

When a snow course was shortened, the original points continued to be measured although renumbered, thus points 1,2,3,4 and 5 may have originally been points

13,14,15,16 and 17. This map also shows the relative position of vegetation and other features with respect to the course. Distances are not measured and asterisks do not represent individual trees but rather a general depiction of vegetation. The density of vegetation is also relative and not absolute.



This chart shows the 5, 15 and 30 year running average for Panguitch Lake. It is interesting that there is a steady decline in April 1 SWE in the 30 year running average essentially from the late 50's to about the mid 70's and then a fairly stable pattern of about 4 inches of SWE from there on. This plot includes nearly 10 years of data from the new site simply added onto the end of the original site's data. Vegetation at this site has not changed significantly over the years and the major impact has been the change in site location. From the above chart, it does not appear that the change in location has had a significant impact on April 1 SWE accumulation. The impacts on other snowpack characteristics such as ablation, etc have not been determined. A cause of decline in accumulation from the late 40's to the mid 70's is undetermined or simply climate fluctuation.

Data from this site up to the relocation could be used for long term comparisons and there after should be cautiously used in long term comparisons.

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2007